

GENERAL NOTES:

1. THE SCOPE OF THIS PROJECT IS TO FURNISH AND INSTALL CONCRETE FOUNDATION, FLATWORK, ACCESSIBILITY RAMP, UTILITIES AND OTHER SITE WORK AS SHOWN IN THE CONTRACT DOCUMENTS FOR ONE (1) MODULAR CABIN INSTALLATION.
2. MODULAR CABIN STRUCTURE WILL BE DELIVERED BY OTHERS. COORDINATE SITE DEVELOPMENT SCHEDULE WITH DELIVERY AND PLACEMENT OF CABIN.
3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO INSURE AGAINST DAMAGE TO EXISTING FACILITIES, PRODUCTS, WORK AND THEIR CONTENTS. ANY DAMAGED ITEMS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. ALL WORK SHALL BE CONSTRUCTED ACCORDING TO THE LATEST EDITION OF IBC AND ADA CODES AND REQUIREMENTS.

GENERAL CONSTRUCTION SEQUENCING:

1. TO MINIMIZE DAMAGE OR DISTURBANCE OF COMPLETED WORK, CONSTRUCTION SEQUENCING SHALL GENERALLY FOLLOW THE ORDER BELOW.
 - a. EXCAVATION FOR FOUNDATION AND UTILITY TRENCHES
 - b. CONSTRUCT CABIN FOUNDATION
 - c. INSTALL UTILITY LINES AND APPURTENANCES, COORDINATE FINAL TIE-INS AFTER CABIN DELIVERY
 - d. BACKFILL AND ROUGH GRADE SITE
 - e. DELIVERY AND SETTING OF CABIN ON FOUNDATION
 - f. CONCRETE FLATWORK, AGGREGATE SURFACES, FINAL GRADING, FINAL UTILITY TIE-INS, OTHER SITE WORK AND INSTALLATIONS
 - g. CONSTRUCT ADA ACCESSIBILITY RAMP AND DECKING

UTILITIES:

1. UTILITY SERVICE PROVIDERS AND CONTACTS ARE AS FOLLOWS:
- ELECTRICAL SERVICE PROVIDER:
- PRAIRIE LAND ELECTRIC COOPERATIVE
DAVE NEWELL
NORTON, KS
785-877-3324
- POTABLE WATER SERVICE
- ROOKS COUNTY RURAL WATER DISTRICT #3
BOB GLENDENING
785-434-2273
2. LOCATIONS SHOWN OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING IN THE AREA.
3. CONTRACTOR SHALL CONTACT KANSAS ONE CALL SYSTEM (1-800-344-7233) A MINIMUM OF 2 FULL WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR UTILITY OWNERS AND FIELD LOCATION OF ALL UTILITIES.
4. COORDINATE ALL UTILITY SERVICE SHUTDOWNS WITH PARK MANAGER.
5. INSTALL UTILITIES TO LINES, GRADES, AND COVER DEPTHS AS INDICATED IN PLANS.
6. PROVIDE AS-BUILT DRAWINGS TO PARK MANAGER SHOWING DIMENSIONAL LOCATIONS OR BENDS, TEES, AND/OR VALVES FROM PERMANENT LANDMARKS.
7. WATER SERVICE UTILITY:
- a. WORK SHALL BE PERFORMED BY A LICENSED PLUMBER.
 - b. KEEP INTERIORS OF PIPE AND FITTING CLEAN OF FOREIGN MATTER THROUGHOUT CONSTRUCTION
 - c. UNDERGROUND PIPE: POLYVINYL CHLORIDE (PVC) PIPE CLASS 200, SDR 21, ASTM D2241; OR SCHEDULE 40 PVC, ASTM D1785. PIPE SHALL BEAR SEAL OF APPROVAL BY THE NATIONAL SANITATION FOUNDATION AND SHALL CONFORM TO PRODUCT STANDARD PS 21-70 AND 22-70.
 - d. PVC PIPE JOINTS SHALL BE COMPRESSION TYPE GASKET JOINT OR SOLVENT WELD
 - e. PVC PIPE SHALL HAVE SCHEDULE 40 PVC, SOCKET-TYPE ASTM D2466 FITTINGS. FITTING SHALL DRY FIT TO PIPE TIGHTLY.

- f. WATER SERVICE TAPS: SERVICE SADDLES SHALL BE BRASS BODY, WIDE BRASS, STAINLESS STEEL STRAP, BUNA-N SEAL, AWWA THREAD, MANUFACTURED BY FORD STYLE 101BS OR ACCEPTABLE EQUIVALENT.
 - g. CORP STOPS: CORPORATION STOPS SHALL BE BALL VALVE STYLE FORD MODEL FB1102 WITH PACK JOINTS BOTH ENDS OR ACCEPTABLE EQUIVALENT.
 - h. PRIOR TO TESTING AND DISINFECTION, ALL WATER LINES SHALL BE THOROUGHLY FLUSHED WITH A FULL HEAD OF WATER.
 - i. CONDUCT HYDROSTATIC AND LEAKAGE TESTS IN PRESENCE OF THE OWNER AND/OR KDWP ENGINEER OR AUTHORIZED REPRESENTATIVE. HYDROSTATIC TEST PRESSURE SHALL BE 100psi MINIMUM. LOSSES BY LEAKAGE SHALL NOT EXCEED 10 GAL/24 HRS/INCH OF PIPE DIAMETER/MILE OF PIPE TESTED. THE TEST PERIOD SHALL BE CONDUCTED FOR AT LEAST FOUR (4) HOURS.
 - j. THOROUGHLY DISINFECT ALL WATER LINES IN ACCORDANCE WITH AWWA C601. DISINFECT BY CHLORINATION USING A SOLUTION PREPARED FROM CALCIUM HYPOCHLORITE (HTH), PERCHLORON, OR PITTCHLOR. SOLUTION SHALL BE 5% POWDER TO 95% WATER WEIGHT. INJECT OR PUMP SLURRY INTO WATER LINE SYSTEM AS TO PROVIDE CHLORINE DOSE OF AT LEAST 25 MG/L. RETAIN DISINFECTANT IN LINES FOR AT LEAST EIGHT (8) HOURS. FLUSH LINES FOLLOWING THE REQUIRED CHLORINATION PERIOD.
8. SANITARY SEWER:
- a. SEPTIC SYSTEM INSTALLATION AND PERFORMANCE SHALL COMPLY WITH THE LATEST REVISION OF BULLETIN 4-2, PUBLISHED BY THE STATE OF KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. LOCAL STANDARDS MAY ALSO APPLY.
 - b. MAINTAIN A MINIMUM OF 10 FEET SEPARATION FROM SEPTIC TANK AND CABIN FOOTING AND/OR EXTERIOR LIVING SPACES.
 - c. MAINTAIN A MINIMUM OF 50 FEET SEPARATION FROM ABSORPTION FIELD AND CABIN FOOTING AND/OR EXTERIOR LIVING SPACES.
 - d. MAINTAIN A MINIMUM OF 25 FEET SEPARATION FROM ANY COMPONENT OF THE SEPTIC SYSTEM AND POTABLE WATER LINES. WHERE 25 FEET OF SEPARATION IS NOT PRACTICAL, A SEPARATION OF 10 FEET MAY BE ALLOWED.
 - e. MAINTAIN A MINIMUM OF 100 FEET SEPARATION FROM ANY COMPONENT OF THE SEPTIC SYSTEM AND WATER SUPPLY WELLS. WHERE 100 FEET OF SEPARATION IS NOT PRACTICAL, A SEPARATION OF 50 FEET MAY BE ALLOWED.
 - f. GRAVITY FLOW LINES SHALL BE INSTALLED WITH NO LESS THAN 1% SLOPE.
 - g. SEWER PIPE AND FITTINGS SHALL BE GASKET OR SOLVENT-CEMENTED JOINT POLYVINYL CHLORIDE (PVC) PIPE. FOUR INCH AND LARGER SHALL CONFORM TO ASTM 3034, SDR26.
 - h. PROVIDE A SANITARY CLEAN OUT ON BURIED SANITARY SERVICE LINES AT THE FOLLOWING LOCATIONS:

1. WITHIN 5' OF CABIN FOOTING SERVICE PENETRATION.
2. AT BENDS GREATER THAN 45-DEGREES.
3. IN SERVICE RUNS WITH NO MANHOLES, PLACE CLEANOUTS AT 200' INTERVALS.
9. ELECTRICAL SERVICE:
 - a. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
 - b. ALL WORK UNDER THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND THE 2005 NATIONAL ELECTRIC CODE.
 - c. COORDINATE RESPONSIBILITIES AND COSTS FOR PERMANENT BUILDING UTILITY SERVICES WITH THE RESPECTIVE UTILITY COMPANIES AND PAY ALL ASSOCIATED FEES.
 - d. TEST ALL CIRCUITS TO BE FREE OF GROUNDS BEFORE ENERGIZING.
 - e. WIRE AND CABLE SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT NATIONAL ELECTRIC CODE AND APPLICABLE ASTM SPECIFICATIONS. ALL CONDUCTORS SHALL BE COPPER INCLUDING PANEL BUSSING. CONDUITS

AND FITTINGS SHALL BE UL LISTED FOR THE APPLICATION AND LOCATION USED.

- f. PROVIDE A GREEN OR BARE EQUIPMENT GROUND CONDUCTOR FOR EACH LIGHTING AND POWER BRANCH CIRCUIT AND FEEDER.
- g. UPON COMPLETION OF ALL BRANCH CIRCUITING, PROVIDE A TYPEWRITTEN CIRCUIT DIRECTORY LISTING EQUIPMENT OR DEVICES SERVED BY EACH CIRCUIT, ON THE INSIDE OF EACH PANELBOARD.
- h. MINIMUM WIRE SIZE SHALL BE #12.
- i. UNDERGROUND CONDUITS ARE TO BE SCHEDULE 40 PVC WITH RMC SWEEPS AND RISERS UNLESS NOTED OTHERWISE.

CONCRETE SIDEWALKS AND SLABS:

1. ALL EXTERIOR PARKING SLABS SHALL BE 7" MINIMUM THICKNESS.
2. ALL WALKS AND CONNECTING SLABS SHALL BE 4" MINIMUM THICKNESS.
3. ALL EXTERIOR CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL BE AIR ENTRAINED.
4. DO NOT PLACE CONCRETE ON FROZEN SUBGRADE OR USE FROZEN AGGREGATE IN THE CONCRETE.
5. WHEN AMBIENT OUTDOOR TEMPERATURE IS LESS THAN 40-DEGREES FAHRENHEIT, ARRANGE FOR PLACEMENT OF INSULATING BLANKETS TO MAINTAIN CONCRETE TEMPERATURE BETWEEN 50 AND 70 DEGREES FAHRENHEIT.
6. IN NO CASE SHALL CONCRETE BE PLACED WHEN AMBIENT OUTDOOR TEMPERATURE IS LESS THAN 20-DEGREES FAHRENHEIT.
7. THE SLABS SHALL BE REINFORCED WITH FLAT PAVING MESH 6x6 W2.9xW2.9 WITH A CONTINUOUS #4 BAR AT THE PERIMETER OF THE SLAB
8. ALL CONCRETE SLABS SHALL BE JOINTED OR SAW CUT TO 1/4 OF THE SLAB DEPTH AS SOON AS POSSIBLE AFTER PLACEMENT. SAWING SHALL COMMENCE AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM BEING LIFTED OR THE CONCRETE SURFACE BECOMING DAMAGED BY THE SAW. AT THE LATEST, SAW CUTS WILL BE MADE ON THE SAME DAY AS THE SLAB IS PLACED.
9. JOINTING PLANS SHALL BE AS SHOWN ON THE DRAWINGS. WHERE NOT NOTED, JOINTING SHALL BE APPROXIMATE SQUARE PANELS NOT LARGER THAN 10 FOOT SQUARES IN THE PARKING SLABS AND 6 FOOT SQUARES ON THE CONNECTING WALKS. JOINTING PLANS SHALL BE ESTABLISHED PRIOR TO THE POUR AND APPROVED BY KDWP ENGINEER.
10. CONCRETE SHALL BE GIVEN A LIGHT BROOM FINISH AND SHALL BE SLOPED 1/4" PER FOOT TO DRAIN AWAY FROM THE CABIN.
11. ALL CONCRETE SURFACES SHALL BE TREATED WITH A COMBINED CURE/SEAL AGENT.;
12. PLACE EXPANSION JOINTS IN SIDEWALK RUNS AT 125' INTERVALS. USE 1/4" REDWOOD BOARDS FLUSH WITH FINISH SURFACE.
13. WHERE SIDEWALK ABUTS RIGID STRUCTURES, PROVIDE 1/2" PRE-MOULDED JOINT FILLER (NON-EXTRUDING, TYPE B). PROVIDE 1/4" PRE-MOULDED JOINT FILLER (NON-EXTRUDING, TYPE B) AT APPURTENANCES PENETRATING THE SLAB OR SIDEWALK.
14. PROVIDE A THICKENED EDGE AT PERIMETER OF CONCRETE WALKS AND CONNECTING SLABS. NOMINAL DIMENSIONS SHALL BE 8" IN THICKNESS, 4" BOTTOM WIDTH, AND SLOPING BACK TO THE SLAB AT 1H:1V.

ACCESSIBILITY RAMP

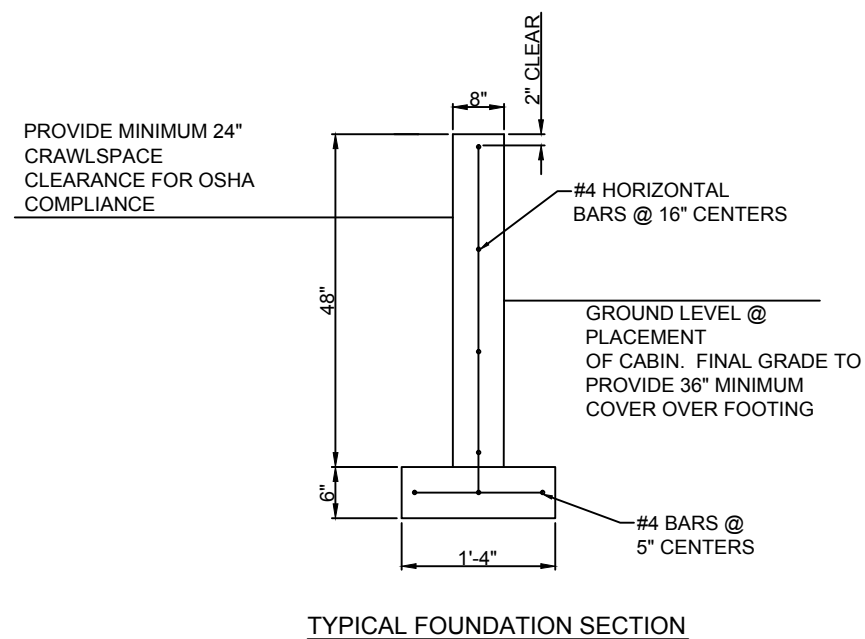
1. CAP RAILINGS AND SURFACES USED AS TOP RAILING SHALL BE SMOOTH AND FREE OF DEFECTS WHICH CAN CAUSE INJURY. ANY RAILING WITH SHARP EDGES SHALL BE EASED, SANDED AND SEALED TO PROVIDE A SMOOTH FINISHED SURFACE.
2. ALL WOODEN COMPONENTS SHALL BE CEDAR UNLESS NOTED OTHERWISE. ALL PIECES SHALL BE STRAIGHT, SQUARE AND FREE OF MAJOR DEFECTS. WOODEN COMPONENTS ARE SUBJECT TO KDWP ENGINEER APPROVAL.
 - a. ACQ TREATED LUMBER MAY BE SUBSTITUTED FOR STRUCTURAL AND SURFACE DECKING COMPONENTS.
3. ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH CURRENT IBC REQUIREMENTS.
4. RAMP GRADES SHALL BE 1V:12H OR LESS IN RISE TO COMPLY WITH FEDERAL ADA STANDARDS.

5. RAMP MAIN SUPPORT POSTS SHALL BE SET ON 12" DIAMETER 4000 PSI CONCRETE PIERS AT 24" DEEP AND ATTACHED WITH RAISED ANCHORING PLATES.
6. ALL HARDWARE AND FASTENERS FOR STRUCTURE FRAMING SHALL BE GALVANIZED STEEL UNLESS NOTED OTHERWISE.
7. UTILIZE POLYESTER COATED SCREWS (OR SIMILAR) THAT ARE COMPATIBLE WITH THE LUMBER PROVIDED. ALL FASTENERS SHALL BE OF SUITABLE LENGTH FOR TYPE OF CONSTRUCTION SHOWN.
8. ADA HANDRAILS SHALL BE SECURELY MOUNTED AND NOT ROTATE WITHIN THEIR FITTINGS.
9. STAINING AND SEALING OF RAMP WILL BE PERFORMED BY OWNER.

EARTHWORK AND GRADING

1. EXCAVATE TO LINES AND GRADES INDICATED ON PLAN AND DETAIL SHEETS.
2. IF EXCAVATED MATERIALS INTENDED FOR FILL AND BACKFILL INCLUDE UNSATISFACTORY SOIL MATERIALS, REPLACE WITH SATISFACTORY SOILS.
3. SATISFACTORY SOIL FOR TRENCH BACKFILLING AND GRADE FILL SHALL BE FREE OF ROCK OR GRAVEL LARGER THAN 1" IN ANY DIAMETER, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, OR OTHER DELETERIOUS MATERIAL.
4. SOIL MAY BE SOURCED ON-SITE AND OFF-SITE. SELECTION IS SUBJECT TO APPROVAL OF KDWP ENGINEER.
5. UTILITY TRENCH BACKFILLING:
 - a. PLACE AND COMPACT TRENCH BACKFILL TO A HEIGHT OF 1 INCHES OVER THE INSTALLED UTILITY PIPE OR CONDUIT.
 - b. CAREFULLY COMPACT MATERIAL UNDER PIPE AND BRING BACKFILL EVENLY UP ALONG BOTH SIDES ALONG THE FULL LENGTH OF PIPING OR CONDUIT TO AVOID DAMAGE OR DISPLACEMENT OF UTILITY SYSTEM.
 - c. PLACE AND COMPACT FINAL BACKFILL TO FINAL GRADE.
6. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT EXCEEDING 8" IN LOOSE DEPTH FOR COMPACTION BY HEAVY EQUIPMENT METHODS. DO NOT EXCEED 6" IN LOOSE DEPTH FOR HAND COMPACTION METHODS.
7. PLACE FILL MATERIALS EVENLY ON ALL SIDES OF STRUCTURE TO REQUIRED ELEVATIONS.
8. COMPACTION: SUCH THAT NO FURTHER CONSOLIDATION IS GAINED BY ADDITIONAL ROLLING. THE KDWP ENGINEER WILL VISUALLY DETERMINE ACCEPTABLE TYPE B COMPACTION BASED ON THE FOLLOWING:
 - a. ACCEPTABLE TYPE B COMPACTION IS DEMONSTRATED IF THE TAMPING FEET OF A TAMPING (SHEEPSFOOT) ROLLER "WALKS OUT" OF THE SOIL AND RIDES ON TOP OF THE LIFT BEING COMPACTED.
 - b. IN SOIL WITH LOW PLASTICITY OR NONPLASTIC FINE-GRAINED MATERIALS, THE TAMPING FEET MAY NOT "WALK OUT" OF THE MATERIAL BEING COMPACTED. WITH THESE MATERIALS, ACCEPTABLE TYPE B COMPACTION IS DEMONSTRATED IF THE TAMPING FEET SUPPORT THE WEIGHT OF THE ROLLER (WITHOUT THE DRUM OF THE ROLLER CONTACTING THE LIFT BEING COMPACTED).
 - c. IN SAND AND GRAVEL, WHERE THE USE OF A TAMPING ROLLER PRODUCES UNACCEPTABLE RESULTS, USE OTHER TYPES OF ROLLERS (SUCH AS A PNEUMATIC-TIRED) TO COMPACT THIS TYPE OF MATERIAL. WITH THESE MATERIALS, ACCEPTABLE TYPE B COMPACTION IS DEMONSTRATED IF NO FURTHER CONSOLIDATION IS EVIDENT AFTER ADDITIONAL PASSES OF THE ROLLER.
 - d. IF THE KDWP ENGINEER IS UNABLE TO VISUALLY DETERMINE THAT TYPE B COMPACTION IS OBTAINED, THE ENGINEER MAY CONDUCT DENSITY TESTS ON THE COMPACTED SOIL. IF TESTED, THE COMPACTED SOIL DENSITY SHALL BE AT LEAST 90% OF THE STANDARD DENSITY. WHEN REQUIRED, THE SOIL TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE.
9. SEEDING WILL BE PERFORMED BY OWNER.

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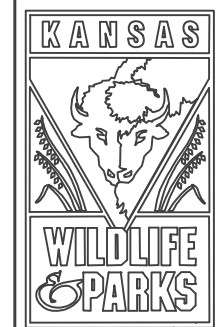


- I. Design Codes and Service Loads Per:
 - A. IBC (Latest Edition)
 - B. Building Code Requirements for Reinforced Concrete (A.C.I. 318-89)
- II. Soil Preparation and Foundations:
 - A. Design soil pressure is 2000psf
Foundation construction shall not proceed until after review of the design bearing pressure by the Engineer or his designated site representative.

Footings shall rest on natural, undisturbed soil at the depth shown on the plans. If design soil pressure is not obtained at depth shown, footing shall be set on compacted fill or lowered until design soil pressure is obtained.
- III. Structural Steel:
 - A. All structural steel shall conform to ASTM A- 36
- IV. Cast in Place Concrete:
 - A. All exterior, non-structural concrete shall be air-entrained and shall have a 28 day compressive strength of 4000psi.
 - B. All exterior, structural concrete shall be air-entrained and shall have a 28 day strength of 4000 psi.
 - C. All interior footings, pier, etc, concrete shall have a 28 day strength of 4000 psi.
 - D. All interior slab-on-grade concrete shall have a 28 day strength of 4000 psi.
 - E. All reinforcing bars shall meet $f_y = 60,000$ psi.
 - F. Provide corner bars in all strip footings and walls. Bars shall be bent at right angles and shall extend two feet in each direction and shall be the same size and spacing as the vertical wall or footing reinforcing.
 - G. Allow concrete foundation a minimum of 28 days before placing modular cabin.
 - H. Do not place concrete on frozen subgrade or use frozen aggregate in the concrete.
 - I. In no case shall concrete be placed when ambient temperature is less than 20-degrees fahrenheit.
- V. Fill annular space around utility penetrations with non-shrink grout, flush to either side of stem wall.

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Kansas Department of Wildlife and Parks
Engineering Services Section
512 SE 25th Avenue
Pratt, Kansas 67124-8174



WEBSTER STATE PARK

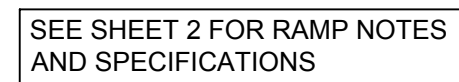
OLD TOWN AREA CABIN

FOUNDATION PLAN

Project No.	
PROJECT NUMBER	

2.2

SHEET
4 OF 7



SHEET
OF 7

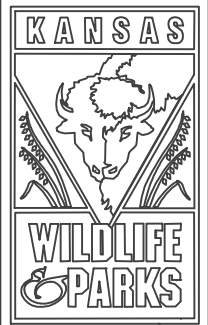
SHEET
OF 7



- NOTES:**
1. BACKFILL TRENCH WITH NATIVE SOIL. REMOVE STONES 3" DIA. AND LARGER.
 2. RAKE BOTTOM AND SIDEWALLS OF TRENCH PRIOR TO INSTALLATION OF CHAMBER SECTIONS.

[illegible]

Kansas Department of Wildlife and Parks
Engineering Services Section
512 SE 25th Avenue
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WEBSTER STATE PARK
OLD TOWN AREA CABIN

DETAILS - 2

Project No. PROJECT NUMBER

3.2

SHEET
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